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**west virginia** department of environmental protection

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Office of Oil and Gas  
601 57th Street SE  
Charleston, WV 25304  
(304) 926-0450  
(304) 926-0452 fax

Earl Ray Tomblin, Governor  
Randy C. Huffman, Cabinet Secretary  
[www.dep.wv.gov](http://www.dep.wv.gov)

August 29, 2013

**WELL WORK PERMIT**

**Vertical Well**

This permit, API Well Number: 47-3305791, issued to HG ENERGY, LLC, is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.

James Martin  
Chief

Operator's Well No: W.B. CARPENTER NO. 251

Farm Name: JUNKINS, EARL & BELVA

**API Well Number: 47-3305791**

**Permit Type: Vertical Well**

Date Issued: 08/29/2013

**Promoting a healthy environment.**

# PERMIT CONDITIONS

West Virginia Code § 22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

## CONDITIONS

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1. If the operator encounters an unanticipated void, or an anticipated void at an unanticipated depth, the operator shall notify the inspector within 24 hours. Modifications to the casing program may be necessary to comply with W. Va. Code § 22-6-20, which requires drilling to a minimum depth of thirty feet below the bottom of the void, and installing a minimum of twenty (20) feet of casing. Under no circumstance should the operator drill more than fifty (50) feet below the bottom of the void or install less than twenty (20) feet of casing below the bottom of the void.
2. Pursuant to 35 CSR § 4-19.1.a, at the request of the surface owner all water wells or springs within 1000 feet of the proposed well that are actually utilized for human consumption, domestic animals or other general use shall be sampled and analyzed.
3. Pursuant to 35 CSR § 4-19.1.c, if the operator is unable to sample and analyze any water well or spring within one thousand (1,000) feet of the permitted well location, the Office of Oil and Gas requires the operator to sample, at a minimum, one water well or spring located between one thousand (1,000) feet and two thousand (2,000) feet of the permitted well location.
4. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
5. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
6. During the surface casing and cementing process, in the event cement does not return to the surface, or any other casing string that is permitted to circulate cement to the surface and does not return to the surface, the oil and gas inspector shall be notified within twenty-four (24) hours.
7. Well work activities shall not constitute a hazard to the safety of persons.

3305791

STATE OF WEST VIRGINIA  
DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
WELL WORK PERMIT APPLICATION

- 1) Well Operator: HG Energy, LLC
- 2) Operator's Well Number: W. B. Carpenter No. 251 3) Elevation 1307'
- 4) Well Type: (a) Oil X or Gas \_\_\_\_\_  
 (b) If Gas: Production \_\_\_\_\_ Underground Storage \_\_\_\_\_
- 5) Proposed Target Formation(s): Fifth Sand
- 6) Proposed Total Depth: 3150' TVD 3200' TMD ft.
- 7) Approximate fresh water strata depths: 225'
- 8) Approximate salt water depths: 1407'
- 9) Approximate coal seam depths: 690'
- 10) Does land contain coal seams tributary to active mine? Yes \_\_\_\_\_ No X
- 11) Proposed Well Work: Drill and stimulate production well in Fifth Sand, well to be drilled directionally S 69° E 210'

12) CASING AND TUBING PROGRAM

SDW  
8/26/2013

TYPE	SPECIFICATIONS		FOOTAGE INTERVALS		CEMENT	
	Size	Grade	Weight Per Ft.	For Drilling	Left in Well	Fill-up (Cu. Ft.)
Conductor						
Fresh Water	7"	LS	17#	765'	765'	Cement to surface
Coal						
Intermediate						
Production	4 1/2"	J-55	10.5#	3200'	3200'	150 Sacks <u>CT</u>
Tubing						
Liners						

Packers: Kind \_\_\_\_\_  
 Sizes \_\_\_\_\_  
 Depths set \_\_\_\_\_

For Office of Oil and Gas Use Only

☐ Fee(s) Paid ☐ Well Work Permit ☐ Reclamation Fund ☐ WPCP

☐ Plat ☐ WW-9 ☐ WW-2B ☐ Bond \_\_\_\_\_ ☐ Agent

(Type)

Received

AUG 28 2013

Office of Oil and Gas  
 Div. of Environmental Protection



1) Date: August 22, 2013  
2) Operator's Well Number  
W. B. Carpenter No. 251  
3) API Well No: 47 - 033 - 05791  
State County Permit

STATE OF WEST VIRGINIA - BUREAU OF ENVIRONMENT  
DIVISION OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4) Surface Owner(s) to be served:  
(a) Name Earl & Belva Junkins ✓ W  
Address RR 5, Box 1226  
Salem, WV 26426  
(b) Name  
Address  
(c) Name  
Address  
6) Inspector Sam Ward  
Address P. O. Box 2327  
Buckhannon, WV 26201  
Telephone (304) - 389-7583

5) (a) Coal Operator:  
Name NA  
Address  
(b) Coal Owner(s) with Declaration  
Name NA  
Address  
(c) Coal Lessee with Declaration  
Name Wolf Run Mining ✓ W  
Address 2708 Cranberry Square  
Morgantown, WV 26505

TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:

Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas OR  
X Included is the information required by Chapter 22, Article 6, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22 of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through 4 on the above-named parties, by:

Personal Service (Affidavit attached)  
X Certified Mail (Postmarked postal receipt attached)  
Publication (Notice of Publication attached)

I have read and understand Chapter 22-6 and 38 CSR 11-18, and I agree to the terms and conditions of any permit issued under this application.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator HG Energy, LLC  
By: Diane C White Diane C White  
Its: Accountant  
Address 5260 Dupont Road  
Parkersburg, WV 26101  
Telephone (304) 420-1119

Subscribed and sworn before me this 22 day of August 2013

My commission expires 1100 12, 2018



Received  
AUG 28 2013



Operator's Well No. W. B. Carpenter No. 251

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS

CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM  
GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE

Operator	HG Energy, LLC		OP Code	494497948	
Watershed	Wizardism Run		Quadrangle	Salem 7.5' 596	
Elevation	1307'	County	Harrison 33	District	Ten Mile 09
Description of anticipated Pit Waste: Fluids encountered in drilling shallow well.					
Do you anticipate more than 5,000 bbls of water to complete the proposed well work?			Yes	No	X
Will a synthetic liner be used in pit?		Yes	If so, what mil.?	20 Mil.	
Proposed Disposal Method For Treated Pit Wastes:					
X		Land Application			
		Underground Injection (UIC Permit Number			
		Reuse (at API Number			
		Off Site Disposal (Supply Form WW-9 for disposal location)			
		Other ( Explain			
Drilling medium anticipated for this well? Air, fresh water, oil based, etc.			Air, Fresh Water		
- If oilbased, what type? Synthetic, petroleum, etc.					
Additives to be used?		Water, soap, KCl			
Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc.			Leave in Pit		
- If left in pit and plan to solidify, what medium will be used?			Cement, lime, sawdust	Native soil, cement, lime	
- Landfill or offsite name/permit number?					

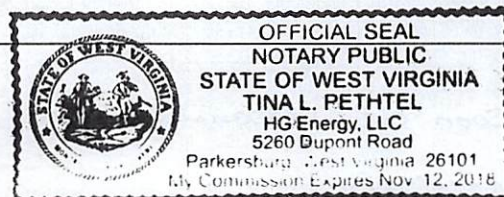
I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature	<u>Diane C White</u>
Company Official (Typed Name)	<u>Diane C. White</u>
Company Official Title	<u>Accountant</u>

Subscribed and sworn before me this 22 day of August 2023  
*Tim L. Petho* Notary Public

My commission expires \_\_\_\_\_  
Form WW-9



Received  
AUG 28 2013  
Public  
Office of Oil and Gas  
WV Dept. of Environmental Protection



Legend

Property Boundary

Road

Existing Fence

Planned Fence

Stream

Open Ditch

Rock

North

Buildings

Water Wells

Drill Site

Diversion

Spring

Wet Spot

Drain Pipe

Waterway

Cross Drain

Filter Strip

Pit: Cut Walls

Pit: Compacted  
Fill WallsArea of Land  
Application  
of Pit Waste

Proposed Revegetation Treatment: Acres Disturbed Area I Approx. 1.0 Ac. Prevegetation pH \_\_\_\_\_

Area II  
Approx. 0.1 Ac.

Lime 2 Tons/Acre or Correct to pH 6.5  
Fertilizer (10-20-20 or Equivalent) 500 Lbs./Acre (500 lbs. Minimum)  
Mulch Straw 2 Tons/Acre

SEED MIXTURES

<u>Area I (Location)</u>	
Seed Type	Lbs./Ac.
Tall Fescue	40
Ladino Clover	5

<u>Area II (Road)</u>	
Seed Type	Lbs./Ac.
Tall Fescue	40
Ladino Clover	5

Attach:

Drawing(s) of road, location, pit and proposed area for land application  
Photocopied section of involved 7.5' topographic sheet.

Received

AUG 28 2013

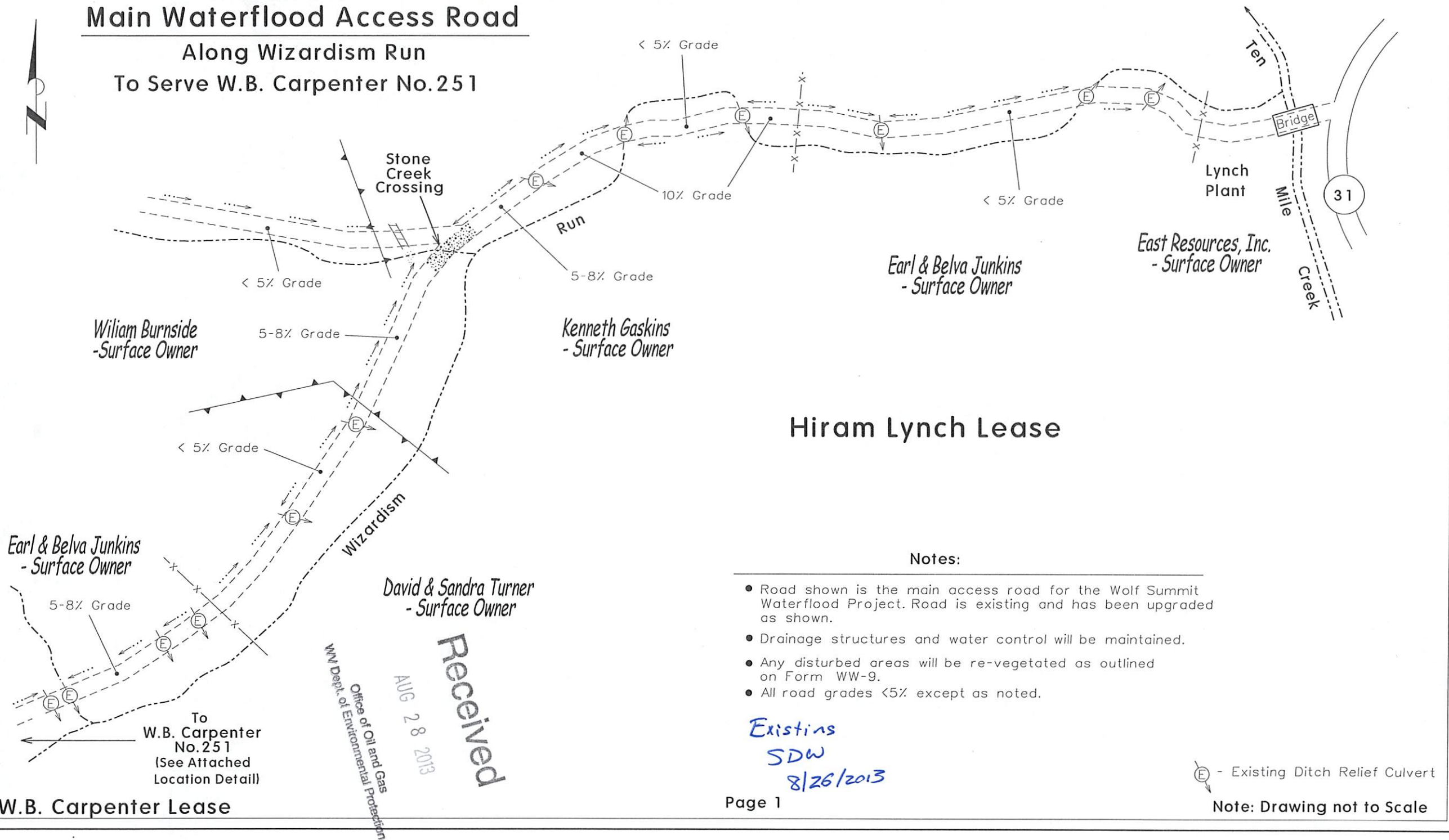
Plan approved by: S. J. D. WardTitle: Oil & Gas InspectorDate: 8/26/2013Field Reviewed? X Yes

No

Pre-seed & mulch as soon as reasonably possible. Update ETS  
per ETS manual where necessary.

Office of Oil and Gas  
WV Dept. of Environmental Protection

# Detail of: Main Waterflood Access Road Along Wizardism Run To Serve W.B. Carpenter No.251



## Hiram Lynch Lease

### Notes:

- Road shown is the main access road for the Wolf Summit Waterflood Project. Road is existing and has been upgraded as shown.
- Drainage structures and water control will be maintained.
- Any disturbed areas will be re-vegetated as outlined on Form WW-9.
- All road grades <5% except as noted.

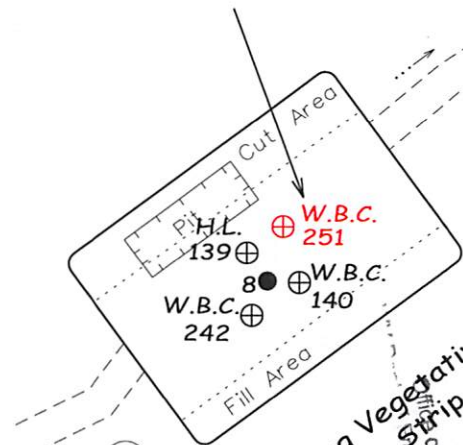
3305791



# Reclamation Plan For: W.B. Carpenter No. 140 & 242 & Hiram Lynch No. 139 and W.B. Carpenter No. 251

**NOTE:**  
The proposed well No. 251 will be drilled on the same location that was constructed under drilling permits issued for No. 139, 140 and 242. No additional construction will be required.

**NOTE:**  
Existing location for WB Carpenter No. 8 will be enlarged to drill new wells No. 139, 140, 242 and WB Carpenter No. 251



Existing Vegetative  
Filter Strip  
Line of Oil and Gas  
Environmental Protection

AUG 28 2013

Record

**NOTE**  
REFER TO THE WVDEP  
EROSION AND SEDIMENT CONTROL  
FIELD MANUAL VER. MAY 2012 FOR  
BMPs CONTROLLING EROSION AND  
SEDIMENT FROM SOIL-DISTURBING  
OPERATIONS.

Note: Drawing not to Scale

Use Existing Access Road  
for WB Carpenter No. 8

W.B. Carpenter Lease

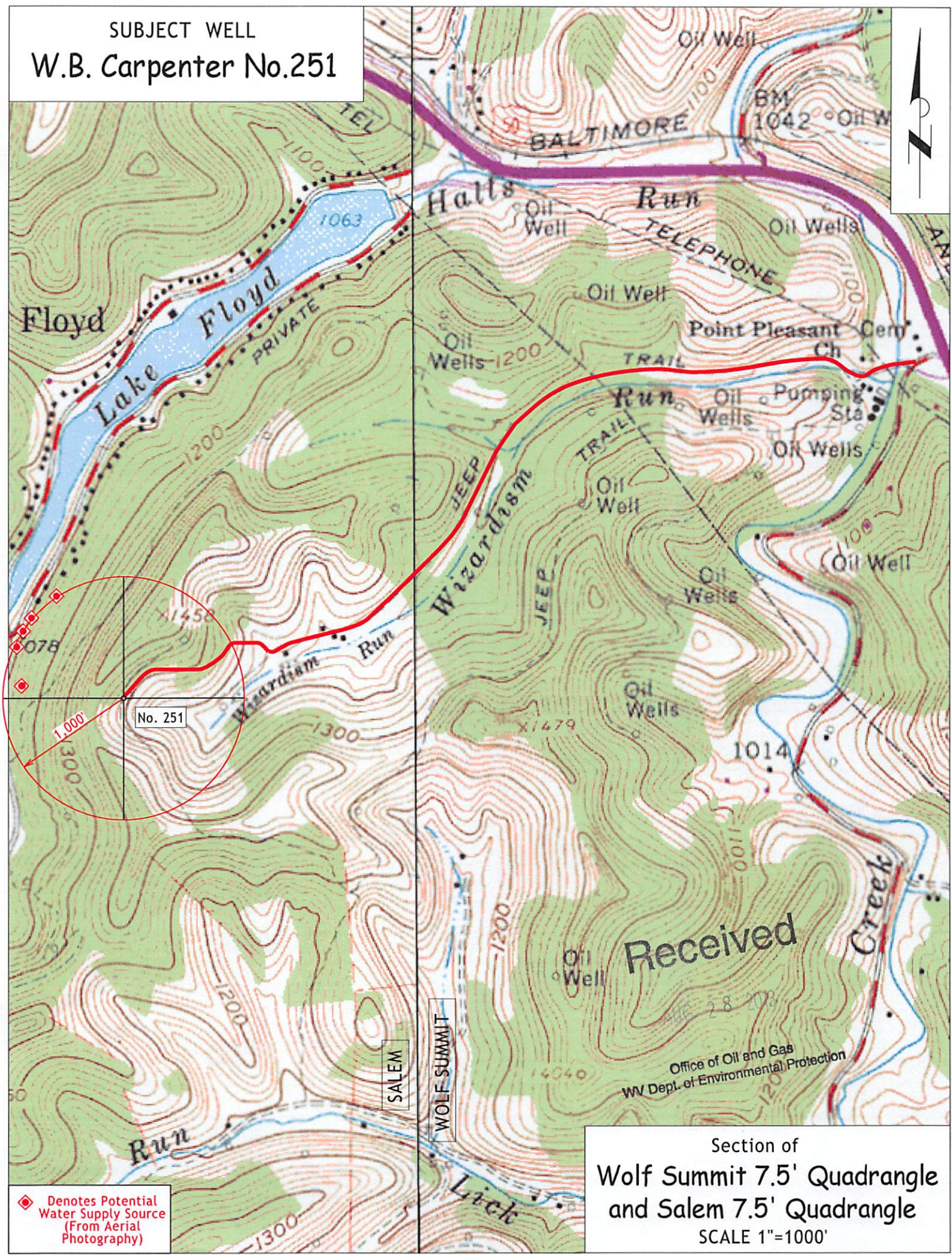
Earl & Belva Junkins  
- Surface Owner

## Notes:

- Requested permit is for drilling of new wells.
- Access road from Co. Rd. 31 to location is existing. Structures will be maintained.
- All disturbed areas will be re-vegetated as outlined on Form WW-9.
- Maintain sediment barriers and drainage structures.
- All road grades <5% except as noted.
- Location of drill pit may be changed based on as-built considerations.



SUBJECT WELL  
W.B. Carpenter No.251



◆ Denotes Potential Water Supply Source (From Aerial Photography)

Section of  
Wolf Summit 7.5' Quadrangle  
and Salem 7.5' Quadrangle  
SCALE 1"=1000'



(BOTTOM HOLE: LON:-80°30'27.8")

LON:-80°30'30.3"

2385

1 - Well ties and Latitude and Longitude were measured by Topcon Hiper GA survey grade GPS. Bearings are referenced to UTM Grid North (Zone 17 North - NAD 1927).  
2 - Surface owners, adjoining information, Lease names, & line mapping obtained from HGE GIS system.  
3 - No Title Opinion was provided to the Surveyor during this survey. This survey is subject to a complete title Opinion.

SURVEY NOTES

UTM Coordinates  
(Zone 17N-NAD 1983)

Surface N-4,347,683m.  
E-542,416m.  
Bottom Hole N-4,347,660m.  
E-542,476m.

LOCATION REFERENCES

NAD 1983  
S 02°13' E 26.0' EX: WELL 1731  
N 25°04' E 150.7' 15" HICKORY  
Brg. Direction is prop. well to the ref.

LAT: 39°17'30"

MAP OF  
H.G. ENERGY, LLC  
-WATERFLOOD UNIT-  
W.B. CARPENTER 251

LON: 80°30'00"

5205

LAT: 39°16'38.6"

(BOTTOM HOLE: LAT: 39°16'37.8")



+ DENOTES LOCATION OF WELL ON U.S. TOPO MAPS.

JOB # 13-014

DRAWING # 13LAKEFLOYD FOLDER

SCALE 1" = 1500'

MINIMUM DEGREE OF  
ACCURACY 1/2500

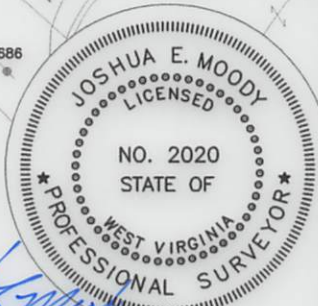
PROVEN SOURCE OF ELEV.  
BENCH MARK H-80

WEST VIRGINIA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS



WEST VIRGINIA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION,  
OFFICE OF OIL AND GAS

MOODY LAND SURVEYING, LLC  
ST. MARYS, WV 26170



JOSHUA E. MOODY, P.S. 2020

DATE 8/21/13  
OPERATOR'S WELL  
W.B. CARPENTER #251

WELL TYPE: OIL \_\_\_ GAS \_\_\_ LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_ HORIZONTAL \_\_\_  
(IF "GAS") PRODUCTION ☒ STORAGE \_\_\_ DEEP \_\_\_ SHALLOW \_\_\_  
LOCATION: ELEVATION 1307' WATERSHED WIZARDISM RUN  
DISTRICT TEN MILE COUNTY HARRISON  
QUADRANGLE SALEM 7.5'

API WELL # 47 - 033 - 05791  
STATE COUNTY PERMIT

SURFACE OWNER EARL & BELVA JUNKINS ACREAGE 152.14 ACRES +/-  
OIL & GAS ROYALTY OWNER CHARLES A. SADLER ET AL LEASE ACREAGE 154 ACRES +/-  
PROPOSED WORK: DRILL ☒ CONVERT \_\_\_ DRILL DEEPER \_\_\_ REDRILL \_\_\_ FRACTURE OR  
STIMULATE ☒ PLUG OFF OLD FORMATION \_\_\_ PERFORATE NEW FORMATION \_\_\_  
OTHER PHYSICAL CHANGE IN WELL (SPECIFY) WILL BE DRILLED DIRECTIONALLY (S 69° E 210')  
PLUG & ABANDON \_\_\_ CLEAN OUT & REPLUG \_\_\_  
TARGET FORMATION 5TH SAND  
WELL OPERATOR H.G. ENERGY, LLC  
ADDRESS 5260 DuPONT ROAD  
PARKERSBURG, WV 26101  
ESTIMATED DEPTH MD= 3,200'  
DESIGNATED AGENT MIKE KIRSCH  
ADDRESS 5260 DuPONT ROAD  
PARKERSBURG, WV 26101